

TuePE29

An Overview of the New Test Stand for H⁻ Ion Sources at FNAL

Alejandro G. Sosa, Daniel S. Bollinger, Kevin L. Duel, Patrick R. Karns, William A. Pellico and Cheng-Yang Tan

Fermi National Accelerator Laboratory, Batavia, IL 60510, U.S.A.

Corresponding Author: Alejandro G. Sosa, e-mail address: asosa@fnal.gov

A new test stand at FNAL is being constructed to carry out experiments to develop and upgrade the present magnetron-type sources of H⁻ ions of up to 80 mA at 35 keV in the context of the Proton Improvement Plan (PIP). The aim of this plan is to provide high-power proton beams for the experiments at FNAL. The technical details of the construction and layout of this test stand are presented, along with a prospective set of diagnostics to monitor the sources.